



## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2020-1037; Project Identifier 2019-SW-077-AD]

RIN 2120-AA64

#### Airworthiness Directives; Airbus Helicopters Deutschland GmbH Helicopters

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for certain Airbus Helicopters Deutschland GmbH Model EC135P1, EC135P2, EC135P2+, EC135P3, EC135T1, EC135T2, EC135T2+, and EC135T3 helicopters. This proposed AD would require removing certain Titanium (Ti) bolts from service and prohibit installing these Ti-bolts in a critical area. This proposed AD was prompted by a report of a broken Ti-bolt. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-1037; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the European Union Aviation Safety Agency (EASA) AD, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

For service information identified in this NPRM, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone 972-641-0000 or 800-232-0323; fax 972-641-3775; or at <https://www.airbus.com/helicopters/services/technical-support.html>. You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110.

**FOR FURTHER INFORMATION CONTACT:** Katherine Venegas, Aviation Safety Engineer, Los Angeles ACO, FAA, 3960 Paramount Blvd., Lakewood, CA 90712; telephone 562-627-5353; email [katherine.venegas@faa.gov](mailto:katherine.venegas@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2020-1037; Product Identifier 2019-SW-077-AD” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA

will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposal.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Katherine Venegas, Aviation Safety Engineer, Los Angeles ACO, FAA, 3960 Paramount Blvd., Lakewood, CA 90712; telephone 562-627-5353; email [katherine.venegas@faa.gov](mailto:katherine.venegas@faa.gov). Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

### **Discussion**

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD No. 2019-0199, dated August 16, 2019, to correct an unsafe condition for Airbus Helicopters Deutschland GmbH (AHD), formerly Eurocopter Deutschland GmbH, Eurocopter España S.A., Model EC135 P1, EC135 P2, EC135 P2+,

EC135 P3, EC135 T1, EC135 T2, EC135 T2+, EC135 T3, EC635 P2+, EC635 P3, EC635 T1, EC635 T2+, and EC635 T3 helicopters. EASA advises of a report of a broken Ti-bolt. Subsequent investigation revealed that an improper heat treatment process was accomplished on a batch of Ti-bolts, which can lead to hydrogen embrittlement. The investigation also identified the critical location where these Ti-bolts are installed on helicopters. According to EASA, this condition, if not detected and corrected, could lead to failure of an affected Ti-bolt installed in a critical location, possibly resulting in reduced control of the helicopter. Accordingly, the EASA AD requires a one-time inspection of Ti-bolt part number (P/N) L535M2001203 marked with manufacturer monogram “D” or with an illegible manufacturer monogram installed on the forward tail rotor (T/R) drive shaft and, depending on the inspection results, replacing the Ti-bolt. The EASA AD also prohibits the (re)installation of these Ti-bolts.

#### **FAA’s Determination**

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all known relevant information and determining that an unsafe condition is likely to exist or develop on other helicopters of these same type designs.

#### **Related Service Information**

The FAA reviewed Airbus Helicopters Alert Service Bulletin (ASB) No. EC135-00A-001, Revision 1, dated September 2, 2019, for Airbus Helicopters Deutschland GmbH Model EC135 T1, T2, T2+, T3, P1, P2, P2+, P3, 635 T1, 635 T2+, 635 T3, 635 P2+, and 635 P3 helicopters, and Airbus Helicopters ASB No. EC135H-00A-001, Revision 1, dated September 2, 2019, for Airbus Helicopters Deutschland GmbH Model EC135, T3H, P3H, 635 T3H, and 635 P3H helicopters. This service information specifies

inspecting the forward T/R drive shaft, distance plate of the 5B-0.50-2.50P-XN-1 antenna, main rotor controls, FWD connection of ball bearing control, and AFT connection of ball bearing control and yaw actuator for the installation of Ti-bolt P/N L535M2001203, EN3308-040020F, L221M1040201, EN3740-060020F, and EN3308-060020F, marked with manufacturer monogram “D” or an illegible manufacturer monogram. If a specified Ti-bolt is installed, the service information specifies replacing the Ti-bolt and discarding the removed Ti-bolt.

### **Proposed AD Requirements**

This proposed AD would require removing any Ti-bolt P/N L535M2001203 marked with manufacturer monogram “D” or with an illegible manufacturer monogram installed on the forward T/R drive shaft from service. This proposed AD would also prohibit installing an affected Ti-bolt on the forward T/R drive shaft of any helicopter.

### **Differences Between this Proposed AD and the EASA AD**

The EASA AD applies to Model EC135 P1, EC135 P2, EC135 P2+, EC135 P3, EC135 T1, EC135 T2, EC135 T2+, EC135 T3, EC635 P2+, EC635 P3, EC635 T1, EC635 T2+, and EC635 T3 helicopters and requires inspecting Ti-bolt P/N L535M2001203 marked with manufacturer monogram “D” or with an illegible manufacturer monogram installed on the forward T/R drive shaft. This proposed AD applies to Model EC135P1, EC135P2, EC135P2+, EC135P3, EC135T1, EC135T2, EC135T2+, and EC135T3 helicopters with a Ti-bolt P/N L535M2001203 marked with manufacturer monogram “D” or with an illegible manufacturer monogram installed on the forward T/R drive shaft instead. This proposed AD does not apply to Model EC635 P2+, EC635 P3, EC635 T1, EC635 T2+, or EC635 T3 helicopters because these models are not FAA type-certificated. The EASA AD requires discarding the affected Ti-bolts, whereas this proposed AD would require removing the affected Ti-bolts from service instead.

## **Costs of Compliance**

The FAA estimates that this proposed AD affects 326 helicopters of U.S. registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates that operators may incur the following costs in order to comply with this proposed AD.

Replacing a Ti-bolt would take about four work-hours and parts would cost about \$82 for an estimated cost of \$422 per Ti-bolt.

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**Airbus Helicopters Deutschland GmbH:** Docket No. FAA-2020-1037; Project Identifier 2019-SW-077-AD.

#### **(a) Applicability**

This airworthiness directive (AD) applies to Airbus Helicopters Deutschland GmbH Model EC135P1, EC135P2, EC135P2+, EC135P3, EC135T1, EC135T2, EC135T2+, and EC135T3 helicopters, certificated in any category, with a Titanium (Ti) bolt part number L535M2001203 marked with manufacturer monogram “D” or with an illegible manufacturer monogram installed on the forward tail rotor drive shaft.

Note 1 to paragraph (a): Helicopters with an EC135P3H designation are Model EC135P3 helicopters. Helicopters with an EC135T3H designation are Model EC135T3 helicopters.

#### **(b) Unsafe Condition**

This AD defines the unsafe condition as failure of an affected Ti-bolt installed in a critical location, possibly resulting in reduced control of the helicopter.

**(c) Comments Due Date**

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(d) Compliance**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(e) Required Actions**

(1) Within 50 hours time-in-service or 3 months, whichever occurs first, remove any Ti-bolt identified in paragraph (a) of this AD, located on the forward tail rotor drive shaft, from service.

(2) As of the effective date of this AD, do not install a Ti-bolt identified in paragraph (a) of this AD on the forward tail rotor drive shaft of any helicopter.

**(f) Alternative Methods of Compliance (AMOCs):**

The Manager, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Manager, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

**(g) Additional Information**

(1) Airbus Helicopters Alert Service Bulletin (ASB) No. EC135-00A-001 and ASB No. EC135H-00A-001, each Revision 1 and dated September 2, 2019, which are not incorporated by reference, contain additional information about the subject of this AD. For service information identified in this AD, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone 972-641-0000 or 800-232-0323; fax 972-641-3775; or at <https://www.airbus.com/helicopters/services/technical-support.html>.



You may view the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177.

(2) The subject of this AD is addressed in European Union Aviation Safety Agency (EASA) No. 2019-0199, dated August 16, 2019. You may view the EASA AD on the Internet at <https://www.regulations.gov> in the AD Docket.

**(h) Subject**

Joint Aircraft System Component (JASC) Codes: 1430, Fasteners; and 6510, Tail Rotor Drive Shaft.

Issued on November 20, 2020.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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